IPC-602

Industrial e-Server Chassis

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Contents

Chapter 1 General Information 1

1.1 Introduction 1
1.2 Specifications 1
1.3 Dimensions 3

Chapter 2 System Setup 5

2.1 Removing the Cover 5
2.2 Adding Disk Drives 6
2.3 Installing Plug-in Cards 7
2.4 Replacing the Fan 7
2.5 Replacing the Filter 8

Appendix A Passive Backplane 9

Appendix B Parts Ordering Guide 11

Appendix C Safety Instructions 13

C.1 English 13
C 2 German - Wichtige Sicherheishinweise 14

Chapter 1 General Information

1.1 Introduction

The IPC-602 is a compact rugged 19" 2U-height rackmount chassis designed for space-limited application. With its rugged, sturdy and well-cooled steel chassis specially designed to withstand heavy shocks and thick dust, the IPC-602 can be used in the harshest of environments. It is ideal for Computer Telephony or network system configurations that require high availability within a limited space, such as computer telephony and networking systems.

1.2 Specifications

- **Construction:** Heavy-duty steel
- **Disk drive capacity:** One 5.25" and two 3.5" drive bays
- **Indicators:** LEDs for power On/Off, HDD and 3.3 V
- **Controls:** Power On and Reset switches on front panel
- **Cooling fan:** Two 42 CFM fans on front panel, with air filters
- **Weight:** 9.8 kg (21.8 lbs)
- **Dimensions (W x D x H):** 481.2 x 449.5 x 88 mm (19" x 17.7" x 4")
- **Interior paint color:** Black 2U, 2X; Fabric Texture

Passive backplane (PCA-6106P3V)

- **Slots:** 2 ISA / 3 PCI / 1 PICMG
- **PC board:** 6-layer PCB with ground and power planes for reduced noise and low power-supply impedance
- **Indicators:** LEDs for +5 V, +12 V, -5 V, -12 V, +3.3 V

Power supply (PS-300ATX)

- **Output rating:** 300 watts max.
- **Input rating:** 90 ~ 130 Vac or 180 ~ 265 Vac @ 47 ~ 63 Hz, switchable
- **Output voltage:** +5 V @ 30 A, +12 V @ 13 A, -5 V @ 0.5 A, -12 V @ 0.8 A, +3.3 V @ 26 A, +5 VSB @ 2 A
- **Minimum load:** +5 V @ 1 A, +12 V @ 0.2 A
- **MTBF:** 100,000 hours @ 25° C, full load
- **Safety:** UL/CSA/CE/NOROIC CENELEC/CB approved
- **EMI:** Meets FCC/VDC CISPR 22

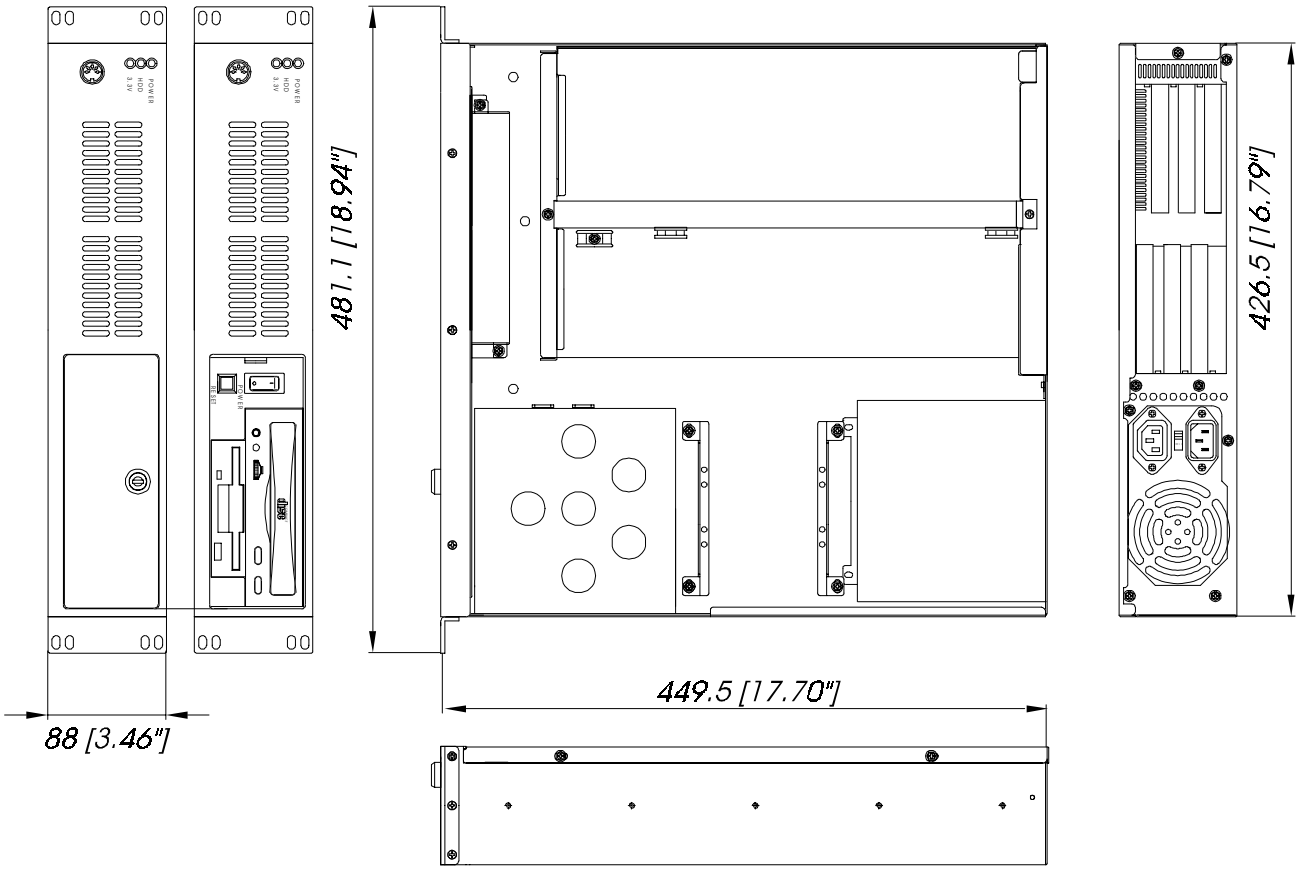
Power supply (PS-30XDC48-BPS)

- **Output rating:** 300 watts max.
- **Input rating:** -40 ~ 56 Vdc @ 47 ~ 63 Hz
- **Output voltage:** +5 V @ 30 A, +12 V @ 12 A, -5 V @ 0.5 A, -12 V @ 1 A, +3.3 V @ 20 A, +5 VSB @ 1.5 A
- **Minimum load:** +5 V @ 3 A, +12 V @ 1 A
- **MTBF:** 119,122 hours @ 75% load
- **Safety:** UL/TUV
- **EMI:** Meets FCC/VDC Class A

Environmental specifications

- **Operating temperature:** 0 ~ 45° C (32 ~ 113° F)
- **Relative humidity:** 10 ~ 95% @ 40° C, non-condensing
- **Safety:** UL / CE approved
- **CE compliant**

1.3 Dimensions



Unit: mm (inches)

Chapter 2 System Setup

The following procedures are provided to assist you in installing drives and plug-in cards into the IPC-602.

2.1 Removing the Cover

Unscrew the six screws on the front and rear panels , and then slide the cover toward the rear chassis. See Figure 2-1 below:

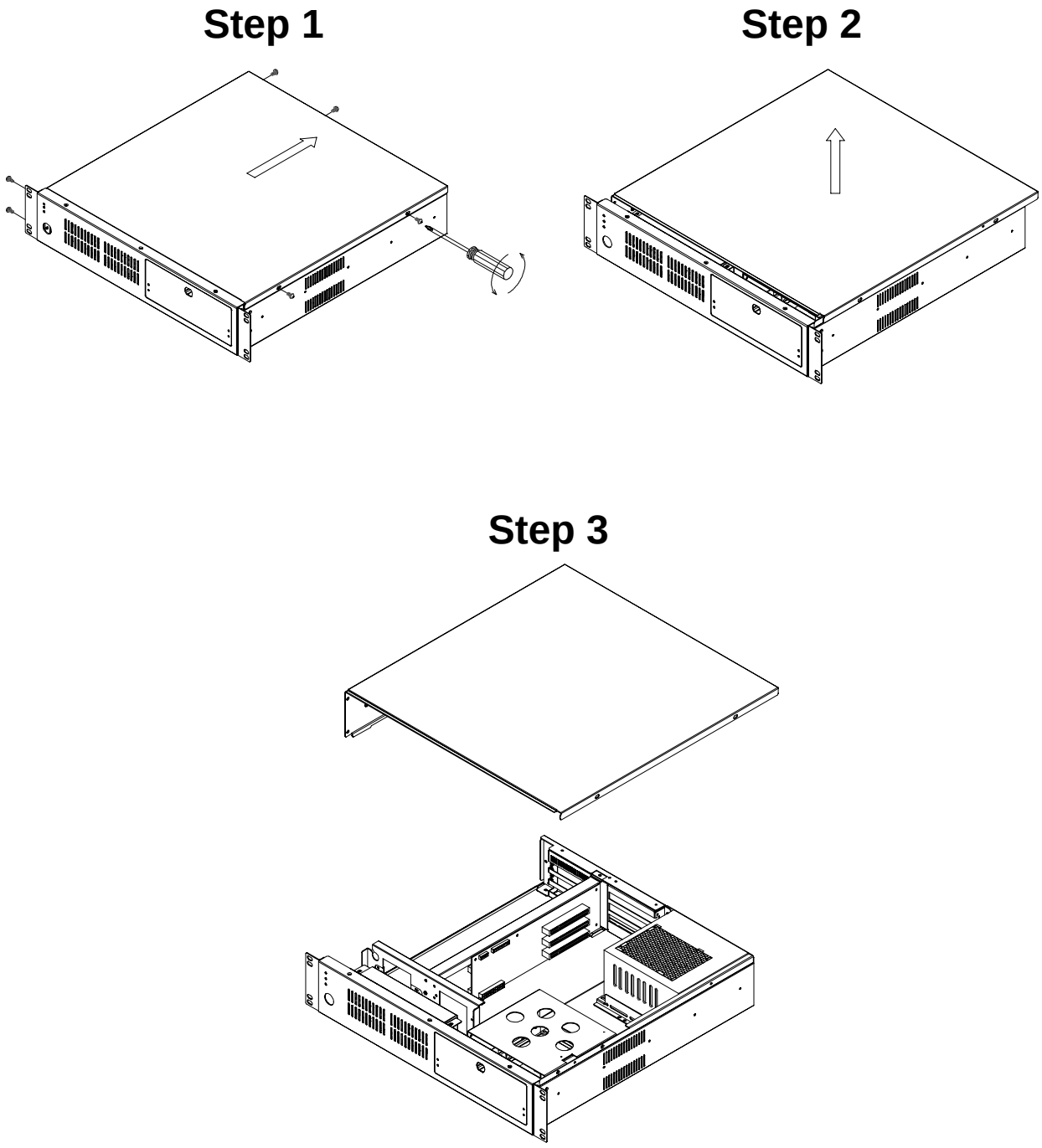


Figure 2-1: Removing the cover

2.2 Adding Disk Drives

After removing the cover, you can easily install disk drives. Refer to Figure 2-2 below and do the following:

1. Remove the four outer screws which mount the drive bay to the chassis.
2. Slide the drive bay about 1 cm. toward the rear, to a location where it is not obstructed by the upper rim. Lift it free of the chassis.
3. Remove the cover of the front drive bay, and insert the drives into their proper locations in the drive bay.

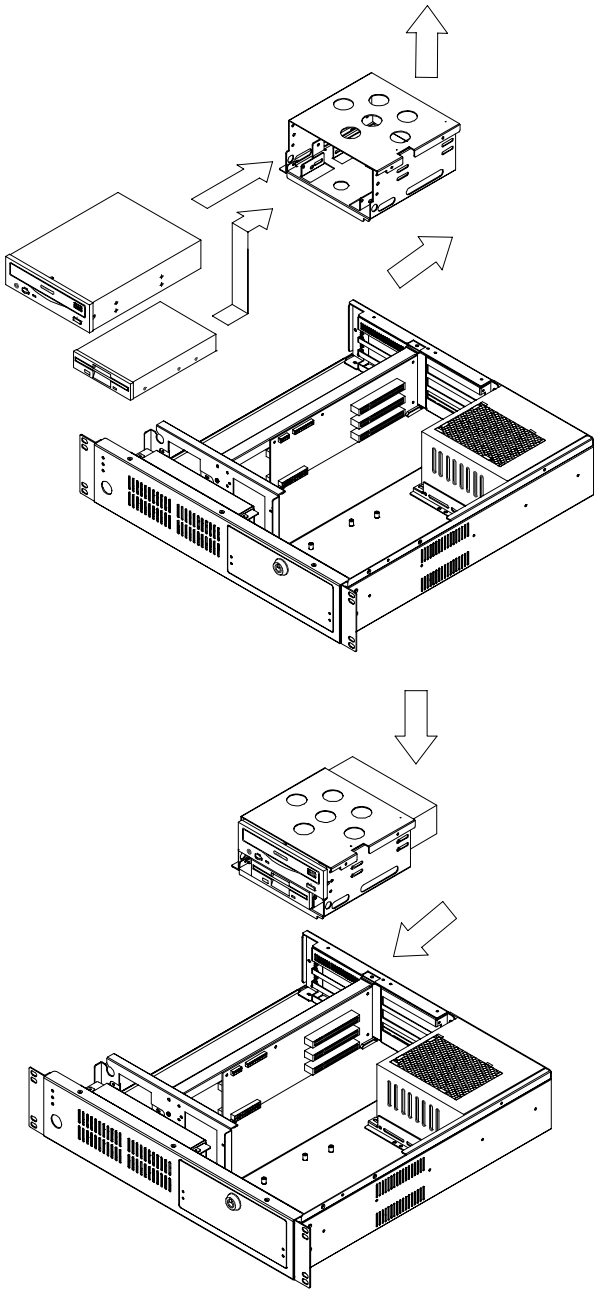


Figure 2-2: Adding disk drives

2.3 Installing Plug-in Cards

After removing the cover, you can easily install plug-in cards. See Figure 2-3 below:

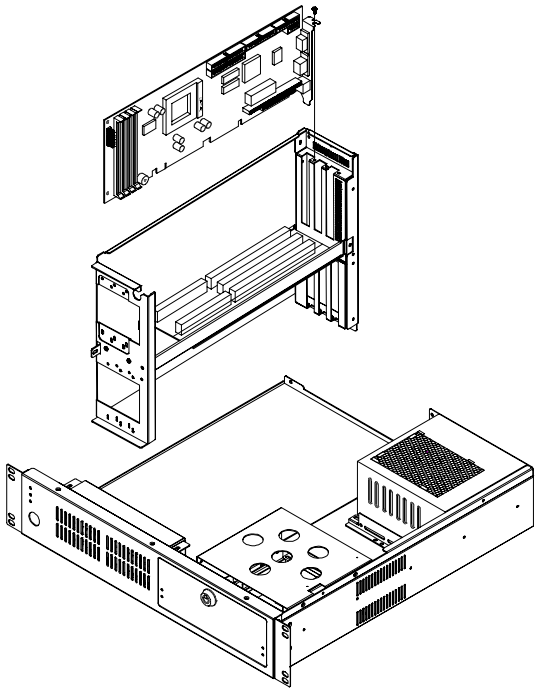


Figure 2-3: Installing plug-in cards

2.4 Replacing the Fan

Unscrew the two screws on the fan, and slide the cover toward the rear chassis. See Figure 2-4 below:

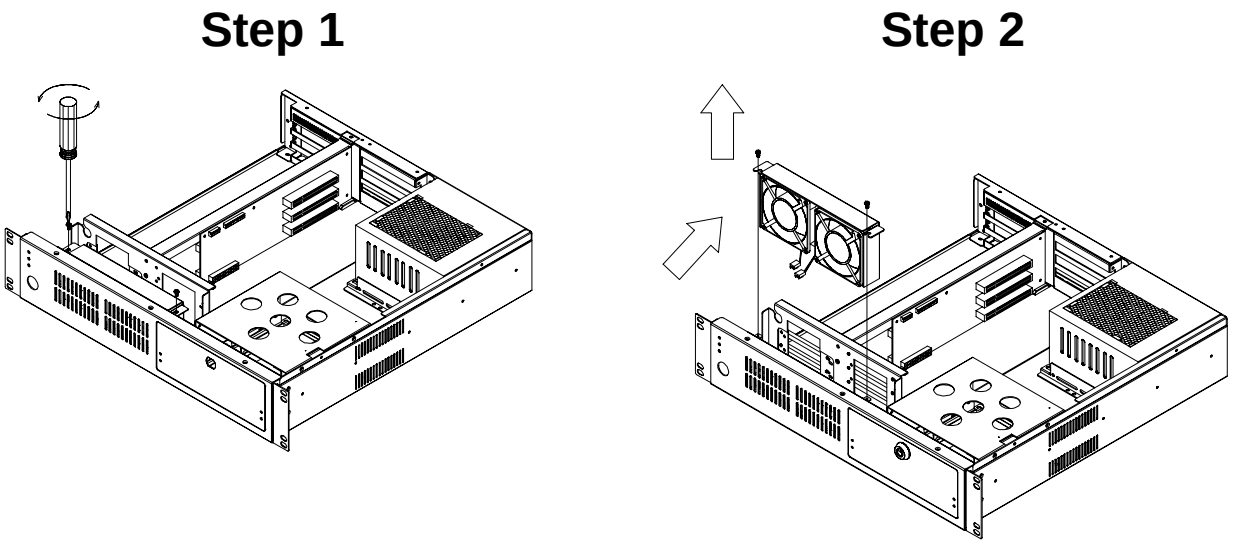


Figure 2-4: Replacing the fan

2.5 Replacing the Filter

The filter is located next to the lockable door. If the IPC-602 is under continuous use, the filter should be changed about once a month. To replace the filter, refer to Figure 2-5 below and do the following:

1. Open the lockable door.
2. Remove the filter by gently pulling the tab and sliding the filter to the right.
3. Slide a new filter in until it snaps into place.
4. Close and lock the lockable door.

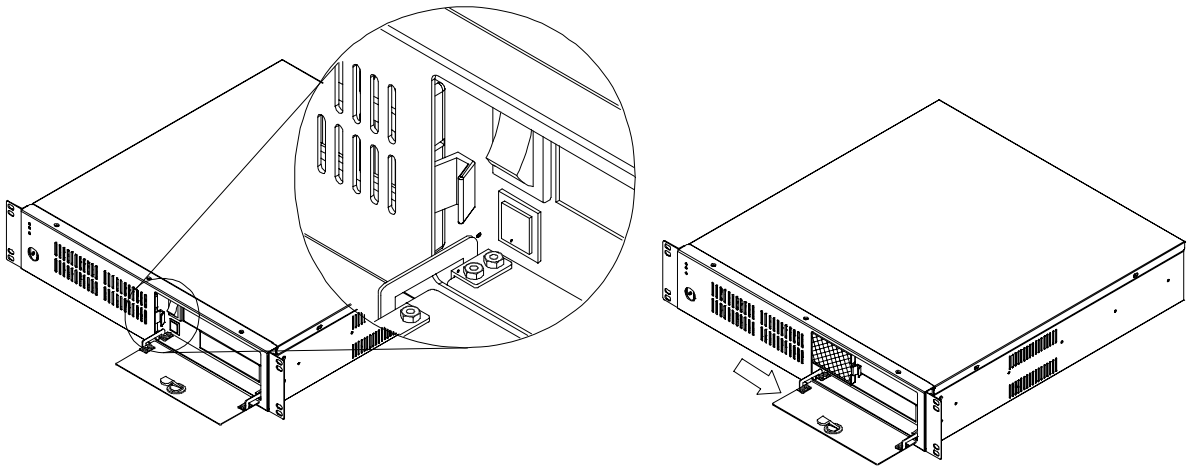
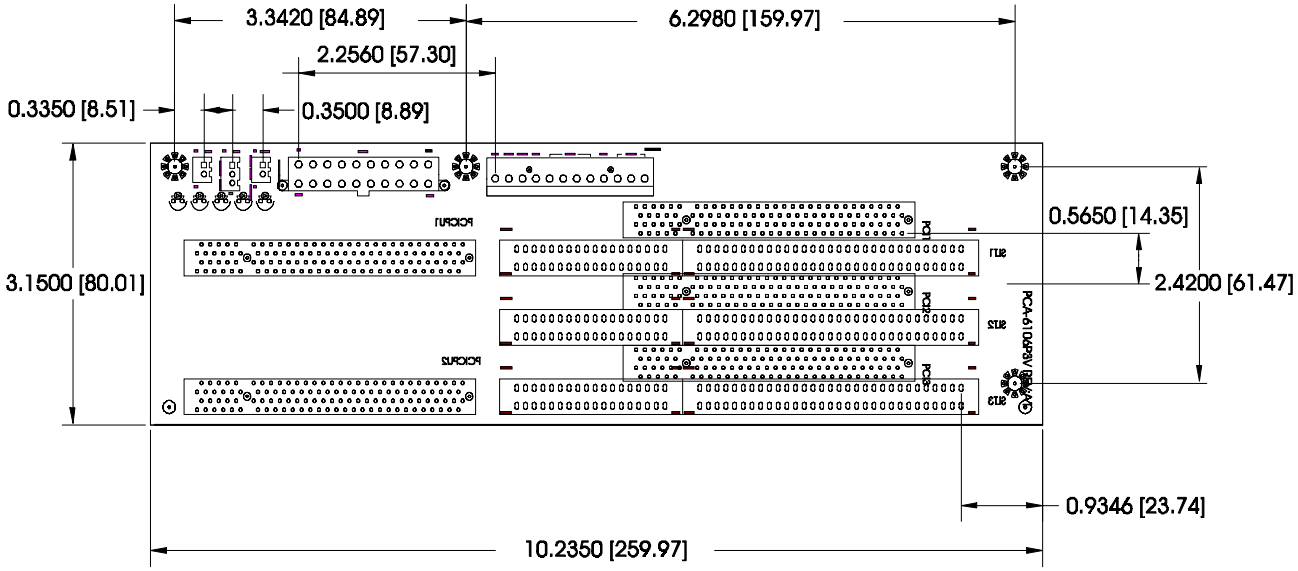


Figure 2-5: Replacing the filter

Appendix A Passive Backplane

PCA-6106P3V: 2 ISA / 3 PCI / 1 CPU slots

Dimensions: 260 x 80 mm



Unit: mm (inches)

1. CONNECTORS

CONNECTOR	DESCRIPTION
SLT1	PCIMG connectors
SLT 2 ~ 3	16-bit ISA-bus connector
PCI 1 ~ 3	32-bit PCI-bus connectors
P8 / P9	To P/S2 power connector
ATX	ATX power connector

2. PIN ASSIGNMENTS

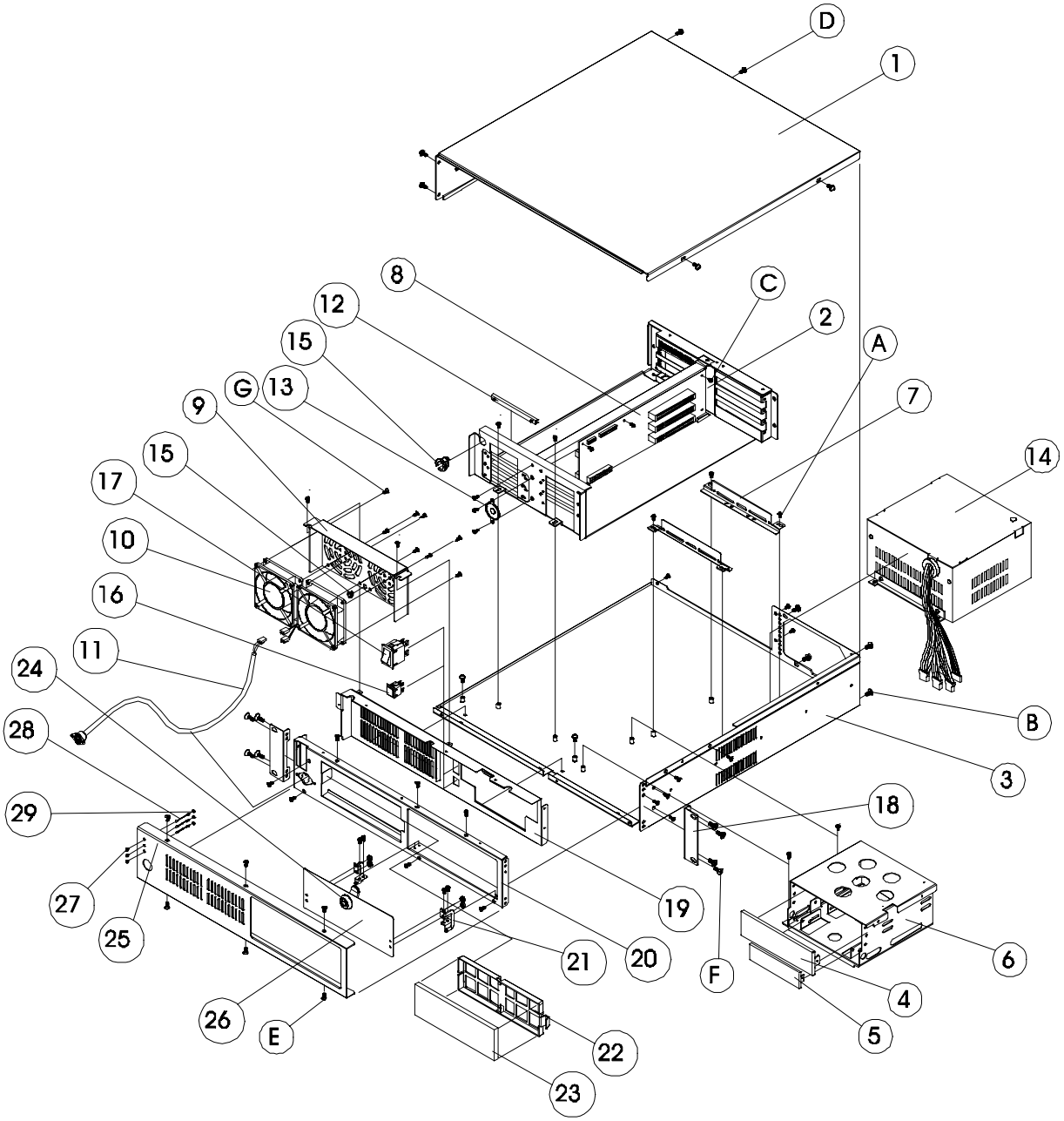
ATX			
PIN	NAME	PIN	NAME
1	+3.3 V	11	+3.3 V
2	+3.3 V	12	-12 V
3	GND	13	GND
4	+5 V	14	PS-ON
5	GND	15	GND
6	+5 V	16	GND
7	GND	17	GND
8	NC	18	-5 V
9	NC	19	+5 V
10	+12 V	20	+5 V

JP1	
PIN	NAME
1	PS-ON
2	GND

J4	
PIN	NAME
1	5 V SB
2	GND
3	PS-ON

J5	
PIN	NAME
1	+3.3 V LED
2	GND
3	NC

Appendix B Parts Ordering Guide



Ref.	Part No.	Q'ty	Description	Ref.	Part No.	Q'ty	Description
1	1962002700	1	TOP COVER	21	1962610130	1	HINGE (L)
2	1962002720	1	M/B BASE		1962610140	1	HINGE (R)
3	1962002710	1	CHASSIS	22	1995000090	1	FILTER HOUSING
4	1962610200	1	5 1/4" DISK COVER	23	1999000630	1	FILTER PE
5	1962615060	1	3 1/2" DISK COVER	24	1992601085	1	KEY SETS
6	1962002760	1	DRIVER BAY BRACKET	25	1962002780	1	FRONT PLATE
7	1962002740	2	HDD BRACKET	26	1962002810	1	DOOR
8	9686610603	1	BACKPLANE	27	1994000070	3	LED LAMP HOLDER
9	1962002730	1	FAN BRACKET	28	1703020602	3	LED LINE
10	1759081200	2	FAN	29	1994000060	3	LED HOUSING
11	1709610000	1	KEYBOARD CABLE				
12	1992600100	6	PCB GUIDE RAIL				
13	1759400200	1	SPEAKER	Ref.	Part No.	Q'ty	Screw Part Name
14	1757225011	1	ATX POWER SUPPLY	A	1939000361	16	HEX/W M3x0.5x5L
15	1994000050	1	WIRE MOUNT	B	1939006320	8	HEX/W #6-32
16	1601000001	1	RESET SWITCH	C	1935330400	6	R/W M3x0.5X5L
17	1602150100	1	ROCK SWITCH	D	1939000410	8	R/W M4x0.7x5L
18	1962002770	2	RACK SIDE MOUNT	E	1930030500	17	FLAT M3x0.5 X5L
19	1962002790	1	FRONT WINDOW	F	1931040620	8	FLAT M4x0.7X5L
20	1962002800	1	BEZEL	G	1939000515	8	

Appendix C Safety Instructions

C.1 English

1. Read these safety instructions carefully.
2. Keep this user's manual for later reference.
3. Disconnect this equipment from any AC outlet before cleaning. Do not use liquid or spray detergents for cleaning. Use a damp cloth.
4. For pluggable equipment, the power outlet must be installed near the equipment and be easily accessible.
5. Keep this equipment away from humidity.
6. Put this equipment on a reliable surface during installation. Dropping it or letting it fall could cause damage.
7. The openings on the enclosure are for air convection. Protect the equipment from overheating. DO NOT COVER THE OPENINGS.
8. Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.
9. Position the power cord so that people cannot step on it. Do not place anything over the power cord.
10. All cautions and warnings on the equipment should be noted.
11. If the equipment is not used for a long time, disconnect it from the power source to avoid damage by transient overvoltage.
12. Never pour any liquid into an opening. This could cause fire or electrical shock.
13. Never open the equipment. For safety reasons, the equipment should be opened only by qualified service personnel.
14. If any of the following situations arises, get the equipment checked by service personnel:
    a. The power cord or plug is damaged.
    b. Liquid has penetrated into the equipment.
    c. The equipment has been exposed to moisture.
    d. The equipment does not work well, or you cannot get it to work according to the installation reference guide.
    e. The equipment has been dropped and damaged.
    f. The equipment has obvious signs of breakage.
15. DO NOT LEAVE THIS EQUIPMENT IN AN UNCONTROLLED ENVIRONMENT WHERE THE STORAGE TEMPERATURE IS BELOW -20° C (-4° F) OR ABOVE 60° C (140° F). THIS MAY DAMAGE THE EQUIPMENT.

The sound pressure level at the operator's position according to IEC 704-1:1982 is equal to or less than 70 dB(A).

DISCLAIMER: This set of instructions is given according to IEC 704-1. Advantech disclaims all responsibility for the accuracy of any statements contained herein.

C.2 German - Wichtige Sicherheishinweise

1. Bitte lesen Sie Sich diese Hinweise sorgfältig durch.
2. Heben Sie diese Anleitung für den späteren Gebrauch auf.
3. Vor jedem Reinigen ist das Gerät vom Stromnetz zu trennen. Verwenden Sie Keine Flüssig-oder Aerosolreiniger. Am besten dient ein angefeuchtetes Tuch zur Reinigung.
4. Die Netzanschlußsteckdose soll nahe dem Gerät angebracht und leicht zugänglich sein.
5. Das Gerät ist vor Feuchtigkeit zu schützen.
6. Bei der Aufstellung des Gerätes ist auf sicheren Stand zu achten. Ein Kippen oder Fallen könnte Verletzungen hervorrufen.
7. Die Belüftungsöffnungen dienen zur Luftzirkulation die das Gerät vor überhitzung schützt. Sorgen Sie dafür, daß diese Öffnungen nicht abgedeckt werden.
8. Beachten Sie beim Anschluß an das Stromnetz die Anschlußwerte.
9. Verlegen Sie die Netzanschlußleitung so, daß niemand darüber fallen kann. Es sollte auch nichts auf der Leitung abgestellt werden.
10. Alle Hinweise und Warnungen die sich am Geräten befinden sind zu beachten.
11. Wird das Gerät über einen längeren Zeitraum nicht benutzt, sollten Sie es vom Stromnetz trennen. Somit wird im Falle einer Überspannung eine Beschädigung vermieden.
12. Durch die Lüftungsöffnungen dürfen niemals Gegenstände oder Flüssigkeiten in das Gerät gelangen. Dies könnte einen Brand bzw. elektrischen Schlag auslösen.
13. Öffnen Sie niemals das Gerät. Das Gerät darf aus Gründen der elektrischen Sicherheit nur von authorisiertem Servicepersonal geöffnet werden.
14. Wenn folgende Situationen auftreten ist das Gerät vom Stromnetz zu trennen und von einer qualifizierten Servicestelle zu überprüfen:
    a. Netzkabel oder Netzstecker sind beschädigt.
    b. Flüssigkeit ist in das Gerät eingedrungen.
    c. Das Gerät war Feuchtigkeit ausgesetzt.
    d. Wenn das Gerät nicht der Bedienungsanleitung entsprechend funktioniert oder Sie mit Hilfe dieser Anleitung keine Verbesserung erzielen.
    e. Das Gerät ist gefallen und/oder das Gehäuse ist beschädigt.
    f. Wenn das Gerät deutliche Anzeichen eines Defektes aufweist.
15. Bitte lassen Sie das Gerät nicht unbehehrt hinten unter -20° C (-4° F) oder oben 60° C (140° F), weil diesen Temperaturen das Gerät zerstören könten.

Der arbeitsplatzbezogene Schalldruckpegel nach DIN 45 635 Teil 1000 beträgt 70dB(A) oder weiger.

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